

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878311042](#)
Status: **Active**
Overview: milligrid
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Vertical, Through Hole, Shrouded, Lead-free, 10 Circuits, 0.76µm (30µ") Gold (Au) Plating, with Locking Window, without PCB Locator, without Center Polarization Slot, Tube

Documents:

[3D Model](#) [Product Specification PS-87831-027 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

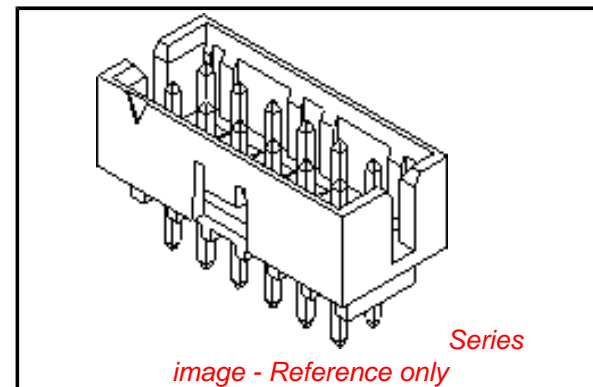
CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [87831](#)
 Application Wire-to-Board
 Comments Contact Molex for application in automotive industry
 Overview [milligrid](#)
 Product Name Milli-Grid™

Physical

Breakaway No
 Circuits (Loaded) 10
 Circuits (maximum) 10
 Color - Resin Black
 First Mate / Last Break No
 Flammability 94V-0
 Glow-Wire Compliant No
 Guide to Mating Part No
 Keying to Mating Part None
 Lock to Mating Part Yes
 Material - Metal Brass
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Material - Resin Nylon
 Number of Rows 2
 Orientation Vertical
 PC Tail Length (in) 0.098 In
 PC Tail Length (mm) 2.50 mm
 PCB Locator No
 PCB Retention None
 PCB Thickness Recommended (in) 0.062 In
 PCB Thickness Recommended (mm) 1.60 mm
 Packaging Type Tube
 Pitch - Mating Interface (in) 0.079 In
 Pitch - Mating Interface (mm) 2.00 mm
 Pitch - Term. Interface (in) 0.079 In
 Pitch - Term. Interface (mm) 2.00 mm
 Plating min: Mating (µin) 30
 Plating min: Mating (µm) 0.76
 Plating min: Termination (µin) 76
 Plating min: Termination (µm) 1.88
 Polarized to Mating Part Side Slots (2)



EU RoHS

**ELV and RoHS
 Compliant**
**REACH SVHC
 Contains SVHC: No
 Halogen-Free
 Status**

China RoHS



**Need more information on product
 environmental compliance?**

Email productcompliance@molex.com
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series

[87831Series](#)

Mates With

[50394](#) Wire-to-Board Terminals. [51110](#) Wire-to-Board Crimp Housing. [87568](#) Wire-to-Board IDT Housings. [79107](#) Board-to-Board Top Entry Through Hole Receptacle. [79108](#) Board-to-Board FFC/FPC Top Entry Through Hole Receptacle. L

Polarized to PCB	No
Shrouded	Fully
Stackable	No
Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-55°C to +105°C
Termination Interface: Style	Through Hole

Electrical

Current - Maximum per Contact	2A
Voltage - Maximum	125V

Solder Process Data

Duration at Max. Process Temperature (seconds)	10
Lead-free Process Capability	Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

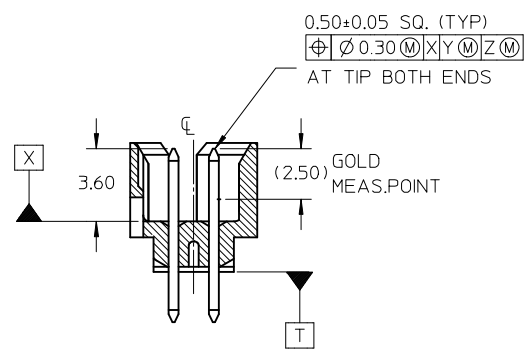
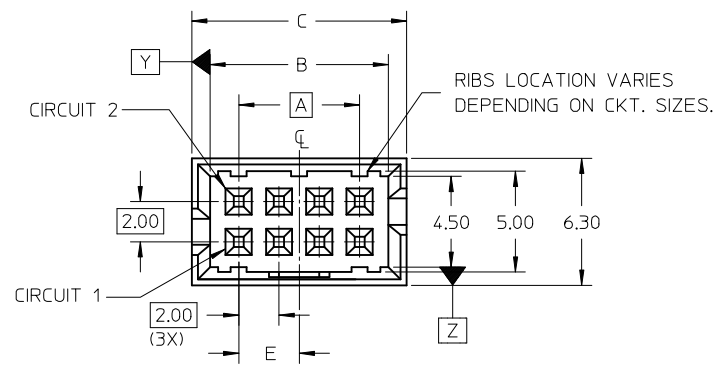
Material Info

Reference - Drawing Numbers

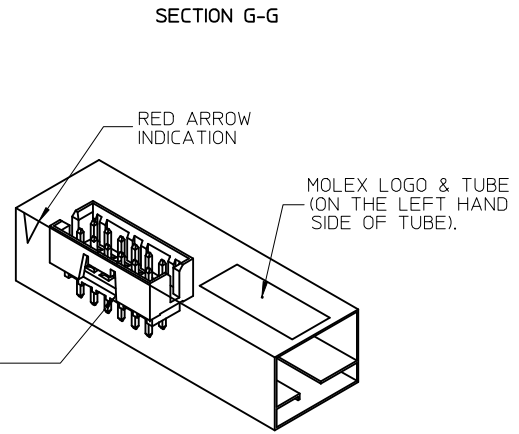
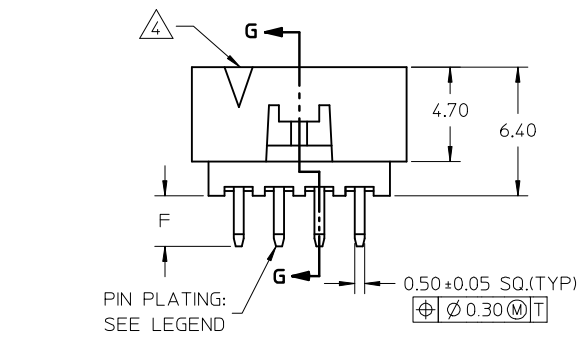
Product Specification	PS-87831-027
Sales Drawing	SD-87831-012

This document was generated on 05/26/2010

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P/N IN TUBE	CKT SIZE	VOID PIN	DIMENSION					
			A	B	C	D	E	F
87831-04**	4	-	2.00	4.85	6.65	5.00	1.00	2.50
87831-06**	6	-	4.00	6.85	8.65	7.00	2.00	2.50
87831-08**	8	-	6.00	8.85	10.65	9.00	3.00	2.50
87831-10**	10	-	8.00	10.85	12.65	11.00	4.00	2.50
87831-12**	12	-	10.00	12.85	14.65	13.00	5.00	2.50
87831-51**	4	-	2.00	4.85	6.65	5.00	1.00	3.50
87831-52**	6	-	4.00	6.85	8.65	7.00	2.00	3.50
87831-53**	12	1	10.00	12.85	14.65	13.00	5.00	2.50
87831-54**	8	-	6.00	8.85	10.65	9.00	3.00	3.50
87831-55**	8	-	6.00	8.85	10.65	9.00	3.00	2.80
87831-56**	12	10	10.00	12.85	14.65	13.00	5.00	2.50
87831-61**	4	-	2.00	4.85	6.65	5.00	1.00	2.80
87831-62**	6	-	4.00	6.85	8.65	7.00	2.00	2.80



PART NUMBER LEGEND :

87831 - * * * *

CIRCUIT SIZE
(SEE TABLE)

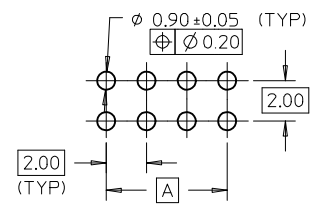
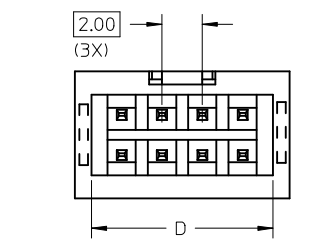
PLATING OPTIONS

- 41 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 42 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.

NOTES:

- FOR ILLUSTRATION PURPOSES, 8 CIRCUIT SIZE WAFER IS SHOWN.
- MATERIAL :
HOUSING : GLASS FILLED, NYLON 46, UL94V-0, COLOR BLACK.
PIN : 0.50MM SQ. PHOSPHOR BRONZE.
- PRODUCT SPECIFICATION PS-87831-027 APPLIES.
4. CKT 4 & 6 HAS NO IDENTIFICATION TAG.
- THIS HEADER MATES WITH MOLEX :
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
- PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.
- NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6

REF : ORIENTATION OF PART IN TUBE
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)



RECOMMENDED PCB PATTERN

ADD NOTE NO. 7 EC NO: S2009-0952 DRWN: YMCHONG CHKD: SKANG APPR: MLONG	QUALITY SYMBOLS ▽=0 ◁=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.2 ± ---	1 PLACE ± --- ± ---	DRAWN BY ATSEE	DATE 2003/10/03	TITLE MGRID, SHROUDED HEADER VERTICAL, W/LOCK FEATURE			
		ANGULAR ± 3 °				CHECKED BY KCL ING	DATE 2003/11/07	MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				APPROVED BY SKTOH	DATE 2003/11/07	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87831-012	SHEET NO. 1 OF 1	